REMARKS

By the above amendment, independent claims 1 and 11 and dependent claim 18 have been amended to clarify the features thereof, with dependent claim 18 and other dependent claims being amended also to correct informalities in the claim.

More particularly, independent claims 1 and 11 and therewith dependent claim 18 have been amended to clarify the features that the signal lines DL, as illustrated in Figs. 1 and 11 of the drawings of this application, are arranged in a plane of the substrate, the data transfer lines DTL, as illustrated in Fig. 1, and the counter voltage signal line (CL), as illustrated in Fig. 11, are arranged in the plane of the signal lines of the substrate, i.e., in the same plane. Similarly, a dummy line DLY, as illustrated in Figs. 1 and 11, is arranged in both of the plane of the signal lines of the substrate and in the plane of the data transfer lines of the substrate, as recited in claim 5, and is formed in the plane of the substrate, i.e., the same plane of the substrate in which the signal lines and the data transfer lines are arranged. Further, as illustrated in Fig. 1, the dummy line is formed between the signal lines in the plane of the substrate and the data transfer lines in the plane of the substrate. That is, the dummy line, the signal lines and the data transfer lines are all formed in the same plane of the substrate with the dummy line being formed between the signal lines and the data transfer lines, and the dummy line is formed so as to extend along at least one of the signal lines in the plane of the substrate.

In a somewhat similar manner, claim 11, as illustrated in Fig. 11, recites the feature that the dummy line is arranged in both of the plane of the signal lines of the substrate and in the plane of the counter voltage signal line of the substrate, and between the signal lines and the counter voltage signal line in the plane of the substrate. That is, as clearly illustrated in Fig. 11, the aforementioned lines are all in

the same plane, with the dummy line being arranged between the signal lines and the counter voltage signal line in the same plane.

As described the specification of this application, this structural arrangement, in the event of a spark SP being generated between the signal lines DL and the data transfer lines DTL, as illustrated in Fig. 4, by the provision of the dummy line DLY arranged in the same plane and between the aforementioned lines, a disconnection of the signal lines DL can be prevented, and likewise, a disconnection of the data transfer signal lines DTL can be prevented. The arrangement as illustrated in Fig. 11 also provides similar effects. Applicants submit that the aforementioned features are clearly recited in the independent and dependent claims of this application and are not disclosed or taught in the cited art, as will become clear from the following discussion.

As to the rejection of claims 2, 4 - 8 and 17 under 35 USC 102(b) as being anticipated by Kuwashiro (Patent No. US 5,945,984); the rejection of claim 11 under 35 USC 102(b) as being anticipated by Ogawa (Patent No. US 6,680,759); the rejection of claims 9 and 14 under 35 USC 103(a) as being unpatentable over Kuwashiro (Patent No. US5,945,984) in view of Ogawa (Patent No. US 6,680,759); the rejection of claim 19 under 35 USC 103(a) as being unpatentable over Moon et al (Patent No. US6,864,937) in view of Ogawa (Patent No. US 6,680,759); the rejection of claims 10, 12, 13 and 20 - 22 under 35 USC 103(a) as being unpatentable over Kuwashiro (Patent No. US5,945,984) in view of Ogawa (Patent No. US6,680,759) and further in view of Hayakawa et al (Patent No. US 6,172,732); the rejection of claims 16 and 18 under 35 USC 103(a) as being unpatentable over Moon et al (Patent No. US 6,864,937) in view of Ogawa (Patent No. US 6,680,759) and further in view of Hayakawa et al (Patent No. US 6,172,732); and the rejection of

claim 23 under 35 USC 103(a) as being unpatentable over Moon et al (Patent No. US6,864,937) in view of Ogawa (Patent No. US 6,680,759) and further in view of Shimada et al (Patent No. US5,852,485); such rejections are traversed insofar as they are applicable to the claims, and reconsideration and withdrawal of the rejections are respectfully requested.

As to the requirements to support a rejection under 35 USC 102, reference is made to the decision of In re Robertson, 49 USPQ 2d 1949 (Fed. Cir. 1999), wherein the court pointed out that anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. As noted by the court, if the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if the element is "inherent" in its disclosure. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Moreover, the court pointed out that inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

In applying Kuwashiro to the claimed invention, the Examiner contends that signal lines are arranged in a plane (701), data transfer signal lines (783) are arranged in the plane of the signal lines, and a dummy line (731) is arranged in the plane of the signal lines and the data transfer lines. Contrary to the position set forth by the Examiner, applicants submit that Kuwashiro specifically discloses an X-printed-wiring board 701 is composed of a rigid multilayer board and has a surface-layer sheet 711, and there is provided a second board 781, which is spaced from the

surface layer 711, as clearly illustrated in Fig. 4 of the drawings of Kuwashiro such that it is readily apparent that the surface-layer sheet 711 and the second board 781 lie in different planes from one another. Furthermore, as described in column 6, lines 35 - 67, a first sheet 751 is mounted between the surface layer sheet 711 of the X-printed-wiring board 701 and the second board 781. Applicants note that the Examiner refers to a dummy line (731), which as clearly disclosed in Kuwashiro, is provided on the surface-layer sheet (711), and the Examiner refers to data transfer signal lines (783) which are provided on the second board (781), as set forth at column 6, lines 58 - 60 of Kuwashiro. Further, the Examiner refers to signal lines (721) which, like the dummy line 731 is provided on the surface-layer sheet (711). Thus, applicants submit that, contrary to the position set forth by the Examiner, Kuwashiro does not provide signal lines 721, data transfer signal lines 783, and a dummy line 731, arranged in the same plane. Thus, the features of claim 5 patentably distinguish over Kuwashiro in the sense of 35 USC 102 with respect to this feature alone. Additionally, while the dummy line 731 may be arranged in the plane of the signal lines 721, of the substrate, it is readily apparent that the dummy line 731 is not arranged in both of the plane of the signal lines of the substrate and in the plane of the data transfer lines of the substrate (which data transfer lines 783 are arranged in the plane of the second board 781 which is spaced from the surface layer 711. Further, it readily apparent that the dummy line 731 is not formed in the plane of the substrate between the signal lines in the plane of the substrate and the data transfer signal lines in the plane of the substrate, as recited in claim 5. That is, the data transfer lines are not arranged in the plane of the signal lines 721, but rather in a different plane, and it is readily apparent that the dummy line 731 is not arranged in the same plane of both of the signal lines and the data transfer lines and between

the data transfer lines and the signal lines. Thus, applicants submit that claim 5 further patentably distinguishes over Kuwashiro in the sense of 35 USC 102 with respect to the aforementioned features. Additionally, applicants submit that the dummy line is not formed so as to extend along at least one of the signal lines. Thus, applicants submit that claim 5 and the dependent claims patentably distinguish over Kuwashiro in the sense of 35 USC 102 and 35 USC 103 and all claims should be considered allowable thereover.

As to the rejection of claim 11 under 35 USC 102(e) as being anticipated by Ogawa (Patent No. US 6,680,759), applicants note that the Examiner apparently refers to Moon, and while the Examiner refers to a dummy line 138, signal lines 134 and counter voltage signal line 128B, it is readily apparent that such features are not disclosed in Ogawa. Applicants submit that whether or not Ogawa is considered to have a dummy line (5a) which is formed so as to extend along the signal line 52(a1), as contended by the Examiner, applicants submit that there is no disclosure in Ogawa that a dummy line is arranged in both of the plane of the signal lines and in a plane of a counter voltage signal line, which is also arranged in the plane of the signal lines, and that the dummy line is formed and arranged between the signal lines in the plane of the substrate and the counter voltage signal line in the plane of the substrate, so that the dummy line, signal lines, and counter voltage signal line are all arranged in the same plane, with the dummy line being arranged between the signal lines in the plane of the substrate and the counter voltage signal line in the plane of the substrate. Applicants submit that no structure or disclosure of such structure is found in Ogawa in the sense of 35 USC 102, such that claim 11 and its dependent claims patentably distinguish over Ogawa and should be considered allowable thereover.

Assuming arguendo that the Examiner intended to refer to Moon et al rather than Ogawa, the Examiner contends that a dummy line (138) is arranged in the plane of the signal lines (134) in the counter voltage signal line 128(b) and between the signal lines (134) and the counter voltage signal line (128). Looking to Fig. 6 of Moon et al, and irrespective of the Examiner's contentions, applicants submit that there is no disclosure in Moon et al that the counter voltage line 128B is arranged in the plane of the signal lines 134 and the dummy line 138 is arranged in both of the plane of the signal lines and in the plane of the counter voltage signal line. Moreover, looking to Fig. 6, the dummy line 138 is arranged outside of the area of the signal lines 134 and the counter voltage signal line 128B, such that irrespective of the contentions by the Examiner, there is no structural arrangement in Moon et al in which the dummy line 138 is arranged in both of the plane of the signal lines of the substrate and in the plane of the counter voltage signal line of the substrate, and between the signal lines in the plane of the substrate and the counter voltage signal line in the plane of the substrate. That is, the claimed location of the dummy line is contrary to that disclosed by Moon et al. Thus, applicants submit that claim 11 also patentably distinguishes in the sense of 35 USC 102 with respect to Moon et al, and claim 11 and the dependent claims should be considered allowable thereover.

With regard to the various combinations of Kuwashiro, Ogawa or Moon et al, with other cited art such as Hayakawa et al and Shimada et al, as pointed out above, none of Kuwashiro, Ogawa or Moon et al disclose the recited features of independent claims 5 and 11 and applicants submit that the other cited art fails to overcome the deficiencies of such patents. Thus, irrespective of the disclosure or teachings of Hayakawa et al and Shimada et al, the combination does not result in the recited features of claims 5 and 11 and therewith the dependent claims. Thus,

applicants submit that independent claims 5 and 11, as amended and the dependent claims, recite features not disclosed or taught by the aforementioned cited art taken alone or in any combination thereof. Accordingly, all claims should be considered allowable thereover.

In view of the above amendments and remarks, applicants submit that all claims present in this application should now be in condition for allowance and issuance of an action of a favorable nature is courteously solicited.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 501.43231X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

/Melvin Kraus/ MK

Melvin Kraus
Registration No. 22,466

MK/jla
(703) 312-6600